

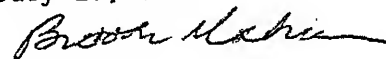
AMENDMENT NO. 1

To

USAID STRATEGIC OBJECTIVE GRANT AGREEMENT NO. 278-008

BETWEEN THE
UNITED STATES OF AMERICA
AND
THE HASHEMITE KINGDOM OF JORDAN
FOR THE
ENHANCED INTEGRATED WATER RESOURCES
STRATEGIC OBJECTIVE

Certified Conformed Copy
of agreement signed on
July 20, 2005



Brooke Isham
Director
Office of Program Management

DATED:

20 JUL 2005

APPN:

BPC:

RCN:

| FUNDS AVAILABLE FOR | |
|--|--|
| ADM. RES. <input type="checkbox"/> | OBLIGATION <input checked="" type="checkbox"/> |
| EM. RES./EM. <input type="checkbox"/> | COMM. RES/COMM. <input type="checkbox"/> |
| ACTION TAKEN BY <i>180</i> DATE <i>7/20/05</i> | |
| APPROPRIATION: <i>① 725161037</i> | |
| BPC: <i>HE55-05-23278-K613</i> | |
| RCN/ECN: <i>A050204 \$ 49,965,448.00</i> | |

97

② 724151037
HE54-05-23278-K613
A050205 \$ 2,150.00

AMENDMENT No. 1
TO
STRATEGIC OBJECTIVE GRANT AGREEMENT

BETWEEN The Hashemite Kingdom of Jordan (Grantee or GOJ) acting through the Ministry of Planning and International Cooperation, and the United States of America, acting through the United States Agency for International Development (USAID).

WHEREAS, on June 2, 2004, the Grantee and USAID (Parties) entered into a Grant Agreement for the Enhanced Integrated Water Resources Strategic Objective (Agreement) whereby USAID granted to the Grantee Thirty Nine Million Five Hundred Eighty Thousand Eight Hundred Sixteen United States (U.S.) Dollars (U.S.\$39,580,816) to finance foreign exchange and local currency costs of achieving the Strategic Objective; and

WHEREAS, the Parties now wish to amend the Agreement to, among other things, provide additional USAID grant funding of Forty Nine Million Nine Hundred Sixty Seven Thousand Five Hundred Ninety Eight U.S. Dollars (U.S.\$49,967,598) to finance foreign exchange and local currency costs of achieving the Strategic Objective;

NOW THEREFORE, the Parties hereby agree to further amend the Agreement as follows:

1. **Article 3: Contributions of the Parties, Section 3.1. USAID Contribution, Subsection (a) The Grant,** is amended by deleting the amount of "Thirty Nine Million Five Hundred Eighty Thousand Eight Hundred Sixteen United States (U.S.) Dollars (U.S.\$39,580,816)" and replacing it with "Eighty Nine Million Five Hundred Forty Eight Thousands Four Hundred Fourteen United States Dollars (U.S.\$89,548,414)".
2. Annex 1 to the Agreement is deleted and hereby replaced in its entirety with the revised Annex 1 attached hereto.
3. Except as amended herein, the Agreement, as amended, remains in full force and effect.

IN WITNESS WHEREOF, the Parties, each acting through their duly authorized representative(s), have caused this Amendment to be signed in their names and delivered as of the day and year first above written.

THE HASHEMITE KINGDOM OF JORDAN

THE UNITED STATES OF AMERICA

BY: Suhair Al-Ali
H.E. Ms. Suhair Al-Ali
Minister of Planning and International
Cooperation

BY: D. L. Hale
David Hale
Charge d'Affaires

BY: Anne Aarnes
Anne Aarnes
Mission Director

ANNEX 1

ENHANCED INTEGRATED WATER RESOURCES MANAGEMENT STRATEGIC OBJECTIVE (SO8)

AMPLIFIED DESCRIPTION

I. INTRODUCTION:

This Annex describes the activities to be undertaken and highlights the results to be achieved with the funds obligated under this Agreement. Nothing in this Annex 1 shall be construed as amending any of the definitions or terms of the Agreement.

II. BACKGROUND:

As a result of an arid climate and a shortage of surface water supplies, Jordan is one of the ten most water-deprived countries in the world. Available per capita fresh water lags far behind that available in most other countries. Daily per capita water consumption rate is quite low. Since water is necessary for both human and economic development, this extreme water scarcity will clearly continue to be a very serious constraint to Jordan's economic growth.

Over the past two decades, the Ministry of Water and Irrigation (MWI) has realized important gains in addressing the challenge of satisfying the rapidly growing demands of communities, industries and farmers, all in the face of a very limited natural supply of water and regional unrest that resulted in influxes of refugees. Nonetheless, the challenges are still enormous and hard decisions ought to be made. Thus, water sector institutions must be further strengthened to establish a water sector that is efficient and financially viable.

Currently, readily available freshwater supplies are fully utilized. All new water supply sources are expensive to build and operate as energy costs are expensive and currently constitute the second largest expense in the Water Authority of Jordan (WAJ) budget. Accordingly, once operational, the total cost of the water supplied into the system will rise considerably as these sources become larger and larger percentages of the total supply. This rise in costs will accelerate over time and have a significant impact on the overall financial status of the sector, necessitating either a

substantial government subsidy to the sector or significant water tariff increases.

In the coming years, the MWI foresees an ever-increasing gap between water supply and demand. The current deficit is forecasted to increase from 297 to 408 million cubic meters (MCM) per year. This dire forecast is predicated on sharply rising demand for municipal and industrial water from 466 to 758 MCM in 15 years and an increase from 791 to 900 MCM in the demand for irrigation water over the next five-year period. This deficit would occur even though an impressive construction program of conventional water collection and distribution facilities is planned.

To mitigate this problem, one major potential project, which is currently being heavily campaigned for by the GOJ, is "the Red Sea-Dead Sea Peace Conduit." The government hopes to get international support for building this multi-billion dollar project that will provide about 850 million cubic meters of fresh water annually to the three regional constituents, namely Jordan, Israel and the Palestinian Authority. This project, taking approximately 15 years to complete, also has high operational costs that will raise the cost of the freshwater in the water system even further, additionally burdening the sector's financial situation.

As these expensive water supply sources are discussed and developed, technology choices must take into consideration the long-term financial impacts associated with these technologies. Likewise, more emphasis should be placed on the management of the resources available. To date, scarce water has been treated as if it were abundant. Hence, water prices have been minimal and demand excessive. Jordanian citizens must be aware of these facts and stakeholders in the new realities.

Efficient water allocation is also a problem. Two-thirds of the country's water goes to low-value agricultural crops. While irrigation and agricultural projects have a social dimension that is recognized by the government and donors, the cost to the nation is very high and the return on investment rather low. And, low prices for irrigation water provide limited incentive to improve irrigation efficiencies, even though the combination of large volumes of water used and the low efficiency level make a prime target for implementing improvements. Unfortunately, the higher value needs of urban

consumers, industry and tourism go unmet. Although the MWI and the GOJ have approved a National Agriculture Strategy as well as water allocation and protection policies, implementation needs to be accelerated. If implementation of the agriculture strategy proceeds in a constructive manner, the Mission could provide assistance for the agriculture sector due to the substantial impact it will have on the Kingdom's water resources.

Another important issue is that about half of the water supplied to the municipal sector is unaccounted for due to physical and administrative factors. As a result, expensive and limited potable water is wasted, burdening GOJ finances and limiting municipal supplies. This problem exists despite recent efforts to develop new water resources and increase pumping from the Jordan Valley to Amman. As a result, the 1.5 million residents of the capital city receive less than 100 liters of water per person per day. Depending on the zone in which they live, they receive their entire weekly supply in only one or two days. The situation for most people living in communities outside the capital is little better. This crisis can only worsen as the total amount of economically available water resources levels off and the population rapidly grows, while Jordanians expect a higher standard of living, including plentiful water supplies. Therefore, the Mission will stress reduction of unaccounted for water as a top priority.

Wastewater treatment offers one solution. Currently, roughly three percent of rural areas have access to wastewater services. Coupled with the anticipated growth in wastewater generated by the municipal and industrial sectors, major expansion of existing wastewater collection systems and treatment plants will be required. If properly planned, wastewater effluent generated by these plants can augment agricultural water supplies and free much needed fresh water for municipal use. Community involvement in planning and reuse will lead to economic and environmental benefits.

Lately, the GOJ has been active in pursuing measures to protect Jordan's most valuable natural resource. The newly issued groundwater by-law is a revolutionary measure that, if properly enforced, will have a profound effect on the protection of the Kingdom's groundwater aquifers. Irrigation efficiencies and reuse of reclaimed water is gaining momentum as a means to improve the lives of rural communities without augmenting their water supplies. Another avenue pursued by the MWI is expanding sewage services to small rural

communities, which protects the watershed, promotes reuse for income generating activities, and improves living standards.

III. THE WATER QUALITY IMPROVEMENT AND CONSERVATION PROJECT,
THE WATER RESOURCES STRATEGIC OBJECTIVE (SO 2) AND THE
ENHANCED INTEGRATED WATER RESOURCES MANAGEMENT STRATEGIC
OBJECTIVE (SO 8):

The GOJ and USAID entered into the Project Agreement for the Water Quality Improvement and Conservation (WQIC) Project on March 3, 1993, as amended by Agreement No. 1 of September 8, 1994. The purpose of this project was to increase the quality and quantity of the water available in the Zarqa Basin system, and other critical areas in Jordan through water conservation. As a result of the "reengineering" of USAID worldwide, USAID, instead of funding projects, was directed to work towards defined Strategic Objectives, which in turn are to be realized through the achievement of defined results. The achievement of results is to be monitored and evaluated using objectively verifiable indicators. In keeping with the reengineering of USAID, the WQIC Project has become the Water Resources Strategic Objective. Subsequent Amendments and the Restated Description attached to them as an annex also reflect that change. The activities stated the Amended and Restated Grant Agreement of September 26, 1996 and its subsequent Amendments No. 1 through 9 are still valid although not mentioned in this new Strategic Objective Grant Agreement (SOAG No. 278-008). The illustrative activities under this new SOAG are stated below.

IV. INTERMEDIATE RESULTS TO ACHIEVE THE STRATEGIC OBJECTIVE:

1) The Strategic Objective.

The Strategic Objective, which is to enhance integrated water resources management, addresses the critical issues of inadequate water supplies in Jordan and Jordan environmental protection. This Strategic Objective seeks to strengthen the capacity of environmental management institutions, including monitoring and protection of surface and groundwater. It also covers the capacity increase of potable water supply and wastewater treatment including reuse.

2) INTERMEDIATE RESULTS

The Strategic Objective for this Agreement will be accomplished through the achievement of four (4) Intermediate Results. These four results follow:

- i) Intermediate Result 1: Improved Environmental Protection.
- ii) Intermediate Result 2: Optimization of Water Resources.
- iii) Intermediate Result 3: Strengthened Water Policies and Systems.
- iv) Intermediate Result 4: Improved Resources Allocation.

Results and indicator will be developed at a stage prior to implementation.

V. ILLUSTRATIVE ACTIVITIES:

The Parties agree to finance activities in the areas of four intermediate results as summarized below:

1) Improved Environmental Protection (Intermediate Result 1):

Counterparts in this field include the newly established Ministry of Environment (MOE), MWI and the Aqaba Special Economic Zone Authority (ASEZA). While USAID/Jordan will not establish a separate environmental Strategic Objective, it will continue to support activities that improve sustainable environmental approaches and policies that protect natural resources and allow economic growth. Activities will resolve monitoring and protection of the surface and groundwater supplies. Special emphasis will be placed on supporting the establishment of appropriate monitoring and enforcement initiatives including the issuance of essential by-laws, processes, expansion of protected areas, and land use planning. Support for achievement of results under IRI may include technical assistance, procurement of commodities and services, construction and training in the following areas:

- i) Strengthening the MOE through empowerment by sound by-laws and reorganization of standard operating procedures
- ii) Environmental protection integration with socio-economic development and land use planning
- iii) Appropriate wastewater treatment capacity for rural and remote community wastewater systems causing pollution to watersheds

- iv) Improving waste disposal (e.g. hazardous, medical
and or solid)

The following represent illustrative activities in support of
IR1:

- Technical and institutional support to the MOE in the field of sound by-laws and reorganization standard procedures
- Technical and institutional support to ASEZA in the field of environmental protection
- Updating the Greater Amman-Zarqa River Basin Wastewater Treatment Master Plan
- Preparation of Jordan Wastewater Reuse Master Plan including formulation of pertinent policies
- Review and assessment of operation and maintenance of Jordan Wastewater treatment facilities
- Review and assessment of operation and maintenance of Jordan water treatment facilities
- Preparation of a human resources strategy that include training and institutional building for the GOJ and pertinent local NGOs
- Technical support to the pertinent GOJ agencies in hazardous, medical waste handling and disposal
- Upgrading wastewater treatment facilities including a reuse program integrated with socio-economic development
- Design and construct upstream remedies to protect existing springs and watershed resources
- Watershed protection will be addressed through measures to stop contamination by residences, and also by industrial and medical waste

2) Optimization of Water Resources (Intermediate Result 2):

Jordan is in a desperate race to match supplies with demand. To keep the water deficit small, the GOJ is developing new water supplies with significant levels of donor support. However, most of the untapped water resource now being developed is quite expensive. Accordingly, it will be critical to ensure that appropriate technology is utilized. Reuse of water must be pursued vigorously to replace good quality fresh water whenever possible.

USAID will support using reclaimed water, improving municipal and irrigation efficiencies, reducing unaccounted-

for water, promoting substitution of high water usage activities with more water efficient uses, and decreasing GOJ and donor subsidies. This will be accomplished by promoting appropriate tariff structures for water and wastewater, improving planning of water resources by GOJ, increasing conservation and water use efficiency by all Jordanians, and promoting the use of appropriate technologies in the sector. Because of their different roles, men and women tend to utilize the resources differently, thus requiring different knowledge and expertise. Accordingly, gender differences will be taken into account when designing and implementing activities.

Support for achievement of results under IR2 may include technical assistance, procurement of commodities and services, construction, and training in the following areas:

- i) Use of reclaimed, brackish and desalinated water prevalent, in the agricultural, industrial and municipal sectors.
- ii) On-farm water use resulting in increased economic return on agricultural water.
- iii) Better water use efficiency within the municipal sector (public buildings and private homes).
- iv) Reduction of municipal water network leakage.
- v) Capacity increases of potable water supply systems.
- vi) Adoption of an effective plan for the implementation of an appropriate tariff structure for water and wastewater that will result in financial sustainability and encourage water conservation.
- vii) Appropriate technology decisions to be adopted by the GOJ.
- viii) Informative outreach programs implemented on watershed management, water conservation measures, farming practices and other water-related issues, all the while taking into consideration the different roles of men and women.

The following represent illustrative activities in support to IR2:

- Education program to Improve Irrigation Water Use Efficiency (KAFA'A) Project
- Design and construct Zarqa River Basin wastewater facilities
- Restructuring and Rehabilitation of Ma'an Water Supply System

- Restructuring and Rehabilitation of Mafraq Water Supply System
- Restructuring and Rehabilitation of Tafila Water Supply System
- Inflow and Infiltration Reduction in Greater Amman (I&I)
- Al Wehdeh Dam Water Conveyance and Treatment Facilities (Design and Construction)
- Partial funding for construction of new water transmission system in Northern Governorates.
- Contingency construction funding for G.Amman Water Supply Rehabilitation and Zara-Main Project.
- Activities to support reuse of water in agriculture and industries.

3) Strengthened Water Policies & Systems (Intermediate Result 3):

Limitations in the institutional capacity of the water sector, coupled with large increases in population and limited funding has created a situation in which MWI is driven to "managing by crisis". As a result, strengthening policies and systems has been highlighted as a high priority in every water sector assessment performed in the last 12 years.

USAID will target assistance on selected initiatives and help modernize the involved institutions to improve their performance. Assistance will target areas such as improving planning and allocation of water, promoting the adoption of selected water policies, building a comprehensive information platform for the sector, and more strategic management of the sector. A national master plan for water resources and sector activities will be supported, which will further strengthen the planning process. This will include the development and implementation of gender-sensitive water resource management strategies and action plans where appropriate. Support for achievement of results under IR3 may include technical assistance, procurement of commodities and services, construction and training in the following areas:

- i) Building regulatory and enforcement capabilities
- ii) Analysis of current policies and their long-term impact as well as how different policies complement or conflict
- iii) Appropriate private sector participation and /or corporatization of the water sector
- iv) Utilization of the National Water Sector Master Plan

- v) Capability building for all operating levels of MWI, JVA and WAJ involved in planning, implementing and monitoring activities
- vi) Capacity building within the water sector institutions in planning for capital investment projects
- vii) Multi-year financial projection including new private sector participation cost and future operation and maintenance cost
- viii) Decrease reliance on foreign donors and GOJ subsidies

The following represent illustrative activities in the support of IR3

- Analyze the current water sector policies and their long-term impact as well as how different policies complement or conflict. Establish a plan to encourage the GOJ agencies to adopt appropriate policies
- Support the development and implementation of appropriate private sector and/or corporatization in the water sector
- Review and expand the National Water Sector Master Plan that sets sector policy at the macro level. Analyze current policies and investment plans to determine the sector's best interests in the long run, especially as related to gender integration, environment protection, and alleviation of poverty
- Build the capability for all operating levels of the water system to develop; implement and monitor strategic business plans, thus improving planning and monitoring activities
- Prepare, develop and implement a comprehensive Information Technology Master Plan for the water sector that will establish the system and/or technologies to be used
- Build capacity within the GOJ's water sector in planning and assessment of capital investment projects
- Strengthen capacity to prepare and use multi-year financial projections, including new private sector participation payment obligations and future operation and maintenance costs
- Provide capacity building assistance to Aqaba Water Company (AWC) and Jordan Valley Authority
- Promote private sector fish farming operations

- Several activities for financial sectors, including a PMU Audit and partial funding for WAJ's financial accounting system
- One public/private assessment for future GAM's water utility operations
- Additional water demand management activities and partial funding for IT implementation

4) Improved Resource Allocation (Intermediate Result 4)

Water allocation policies that take into account the scarcity of resources and water quality constraints have been approved by the GOJ. However, implementation has been gradual and still requires tough decisions with considerable social impacts. Nonetheless, if Jordan is to live within its means in the future, then improved resource allocation and elimination of over-drafting of groundwater supplies must be realized over this decade.

To achieve better allocation of resources, USAID support will be targeted to improve management and control of groundwater over-drafting, expand wastewater treatment capacity and promote wider use of reclaimed water. Development and implementation of comprehensive plans utilizing water system economics and processes will also be required to help Jordan cope with limited water resources. Support for achievement of results under IR4 many include technical assistance, procurement of commodities and services, construction and training in the following areas:

- i) Expansion of wastewater treatment capacity along with effluent reuse;
- ii) Groundwater monitoring and enforcement;
- iii) Infrastructure needed to improve water resource allocation;
- iv) Implementation of the adopted GOJ water allocation and reuse policies; and;
- v) Economic studies for good capital investment planning

The following represent illustrative activities of IR4:

- Expand wastewater treatment capacity to include small and medium-sized communities to produce good quality effluent for successful reuse in agriculture and industry.
Potential projects:

- Design and construct North Shuneh wastewater treatment facilities and reuse system
- Construct South Amman wastewater treatment facilities and reuse system
- Design and construct Mazar, Muta and Aldaniya treatment facilities including a reuse system.
- Upgrading of Kufranjah Wastewater treatment facilities including a reuse system
- Design and construct Al-Jiza and Talbiha wastewater treatment facilities including a reuse system.
- Assist in providing selected infrastructure to improve water resource allocation
- Provide assistance to MWI to establish a Groundwater Monitoring and Enforcement Unit that will help implement the new groundwater by- law.
- Collaborate with the GOJ to design, adopt and enforce by-laws and regulations that will accelerate the implementation of the adopted GOJ water allocation and reuse policies.
- Prepare economic studies for capital investment planning.
- A sewage collection system in South Amman.
- Construction of two small communities' wastewater treatment plants.
- Contingency construction funding for As Samra Project.

This illustration list is suggestive of the types of activities funded with resources provided under SOAG No. 278-008 and its future amendments. USAID may partially or fully fund any of these activities, and/or other mutually agreed to activities, subject to availability of funds.

This program has been designed to allow flexible selection and modification of activities over time in order to best achieve the strategic objective and intermediate results identified above. The emphasis under this program will be on achievement of agreed-upon results, not simply completion of specific activities. Consequently, activities to be financed under this Agreement, such as feasibility studies, technical assistance, training, design and construction, have not been specified in detail in this Amplified Description.

Although this agreement offers consideration flexibility and scope for selecting suitable activities to be financed under it, to be eligible for financing hereunder any activity must:

- 1) contribute to the strategic objective and intermediate results identified above;
- 2) be supported by cost estimates that are reasonable and accurate, and have appropriate analysis, including feasibility analyses with regard to institutional, technical, environmental, financial, and social soundness, or other measures of feasibility; and
- 3) be likely to be completed within the time frame and budget specified in the proposal.

Additional criteria for selection of activities could include customer demand, USAID comparative advantage, previous experience/ "lessons learned", sustainability, cost-sharing, etc.

USAID will coordinate with the GOJ and other relevant parties prior to selection of activities for funding, using means appropriate under the circumstances.

VI. MONITORING AND EVALUATION:

USAID and the GOJ jointly agree to provide resources and information for comprehensive evaluation of progress towards achievement of the Strategic Objective, Intermediate Results and Sub-results, including progress on specific tasks illustrated in Section V. "Performance Audits" may be conducted, based on specific indicators which measure progress in achieving Intermediate Results.

Financial audits of various activities and assistance instruments will be conducted in accordance with relevant standard provisions contained in Annex 2 of this agreement. As determined during the course of implementation of this Agreement, USAID and the GOJ may jointly authorize an external evaluation of the progress and impact of the activities towards accomplishing the Strategic Objective and Intermediate Results.

Each contracting/assistance instrument will include a performance monitoring tool to permit USAID and the GOJ to evaluate progress towards the goals and objectives of the respective contract/instrument.

The host country contribution which is identified in Attachment 1 to this Annex includes cash and in-kind contributions to be made by the Government of Jordan to the USAID-Funded projects over the life of the SO. The Government

of Jordan will achieve its contribution level by allocations to water resource projects and activities from the Local Currency program jointly managed by USAID/Jordan and the Ministry of Planning and International Cooperation. The Government of Jordan will report their contribution to USAID on annual basis. The report format and requirements will be established through a Program Implementation Letter (PIL). The SOAG agreement, the SOAG amendment or implementation letter will identify the custodian of the auditable records supporting the host country contribution and where the records will be maintained. The agreement/PIL shall also require that the auditable records be made available for review by USAID and its representatives, and/or GOJ audit institutions upon request. The description of the contribution and budget will be updated each time the SOAG is amended, or until all categories of host country contribution are described and quantified.

VII. FINANCIAL PLAN:

The Financial Plan (Attachment 1) may be amended in accordance with Sections 3.1 (c) and 7.2 of the Agreement without formal amendment of the Amended and Restated Grant Agreement.

SO: Enhanced Integrated Water Resources

| INTERMEDIATE RESULT | PROGRAM FUNDING | | | | | | | |
|--|----------------------|-----|----------------|-----|------------|-------------|------------|-------------|
| | PREVIOUS OBLIGATIONS | | THIS AMENDMENT | | TOTAL | LIFE OF SO | | |
| | USAID | GOJ | USAID | GOJ | | USAID | GOJ | TOTAL |
| 1. Improved Environmental Protection | 4,065,000 | 0 | 2,467,598 | 0 | 6,532,598 | 18,600,000 | 0 | 18,600,000 |
| 2. Optimization of Water Resources | 29,250,000 | 0 | 15,000,000 | 0 | 44,250,000 | 198,900,000 | 15,000,000 | 213,900,000 |
| 3. Strengthened Water Policies and Systems | 5,015,000 | 0 | 7,500,000 | 0 | 12,515,000 | 50,000,000 | 0 | 50,000,000 |
| 4. Improved Resources Allocation | 1,250,816 | 0 | 25,000,000 | 0 | 26,250,816 | 92,500,000 | 15,000,000 | 107,000,000 |
| TOTAL | 39,580,816 | 0 | 49,967,598 | 0 | 89,548,414 | 360,000,000 | 30,000,000 | 390,000,000 |